

In this unit, we will look for the answers to these questions:

- What are the facts about living standards and growth rates around the world?
- Why does productivity matter for living standards?
- What determines productivity and its growth rate?
- How can public policy affect growth and living standards?

*A typical family with all their possessions in the U.K.,  
an advanced economy*



Real GDP per capita: \$30,800

Life expectancy: 78 years

Adult literacy: 99%



*A typical family with all their possessions in Mexico,  
a middle income country*



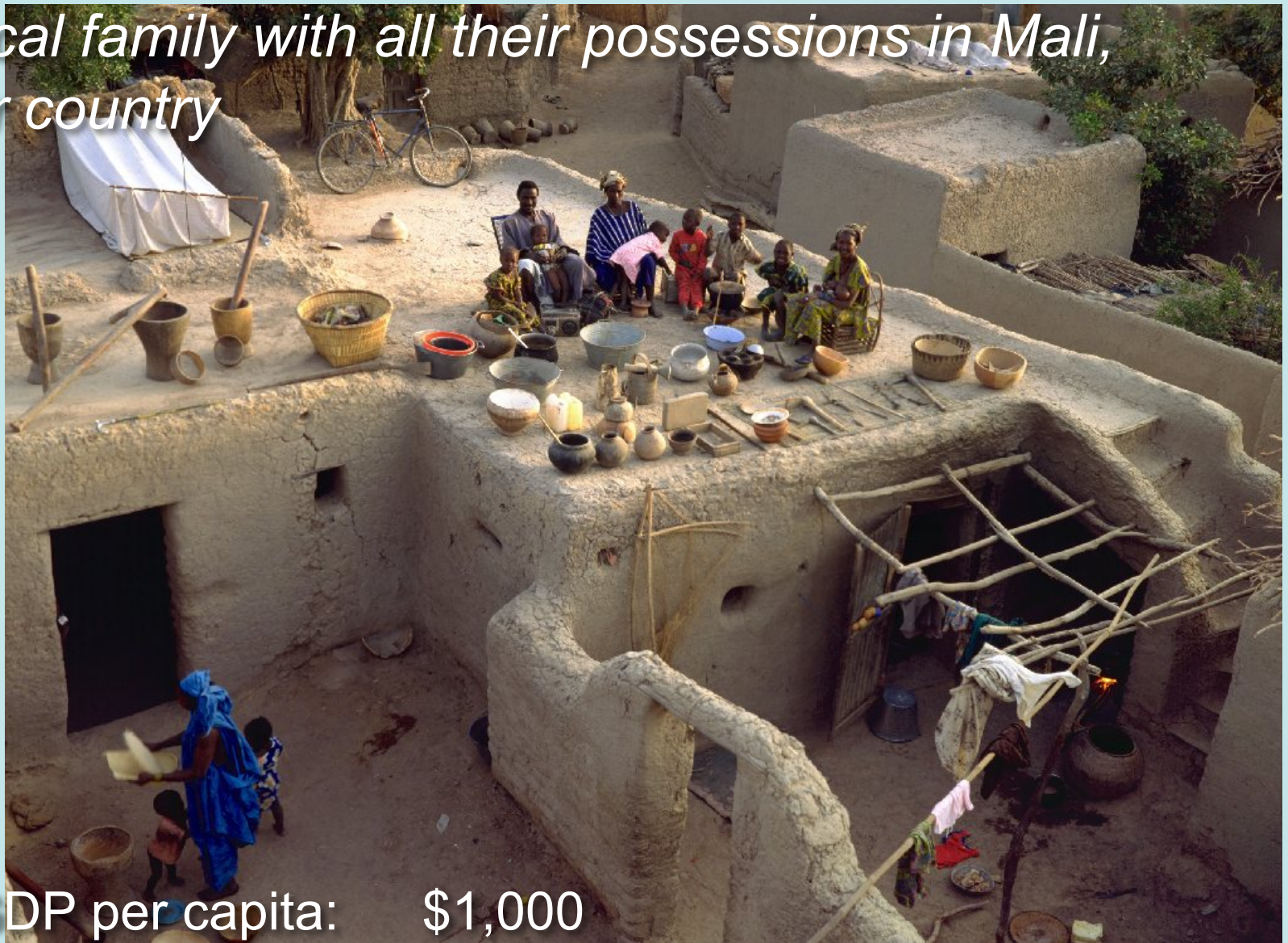
Real GDP per capita: \$9,800

Life expectancy: 74 years

Adult literacy: 92%



*A typical family with all their possessions in Mali,  
a poor country*



Real GDP per capita: \$1,000

Life expectancy: 41 years

Adult literacy: 46%

## *Incomes and Growth Around the World*

### **FACT 1:**

There are vast differences in living standards around the world.

	<b><i>GDP per capita, 2004</i></b>	<b><i>Growth rate, 1960-2004</i></b>
China	\$5,495	5.6%
Singapore	27,273	5.4%
Japan	29,539	3.9%
Spain	25,341	3.2%
Israel	24,082	2.6%
India	3,115	2.5%
United States	39,618	2.2%
Canada	31,129	2.1%
Colombia	7,121	1.8%
New Zealand	22,912	1.4%
Philippines	4,558	1.3%
Argentina	12,723	0.8%
Saudi Arabia	14,022	0.8%
Rwanda	1,326	0.2%
Haiti	1,685	-1.3%

## *Incomes and Growth Around the World*

### **FACT 2:**

There is  
also great  
variation  
in growth  
rates across  
countries.

	<b><i>GDP per capita, 2004</i></b>	<b><i>Growth rate, 1960-2004</i></b>
China	\$5,495	5.6%
Singapore	27,273	5.4%
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# How do we classify countries?

- First, second and third world?
- North and South?
- Industrialized and industrializing countries?
- Developed and developing countries or more developed country (MDC) and less developed country (LDC)?
- High, middle and low income countries?

**What is the difference between economic growth and economic development?**

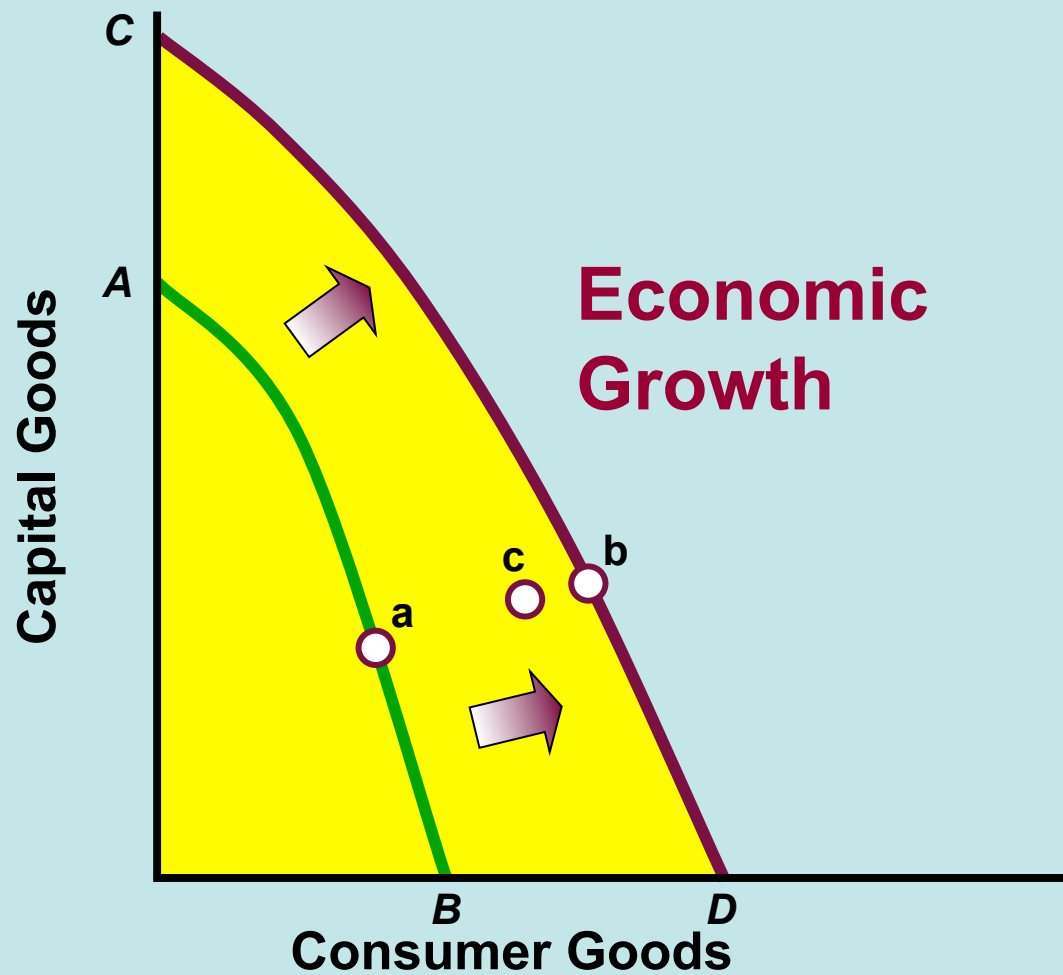
## **Human Development Index**

- 1. Life expectancy at birth**
- 2. Adult Literacy**
- 3. GDP per capita**

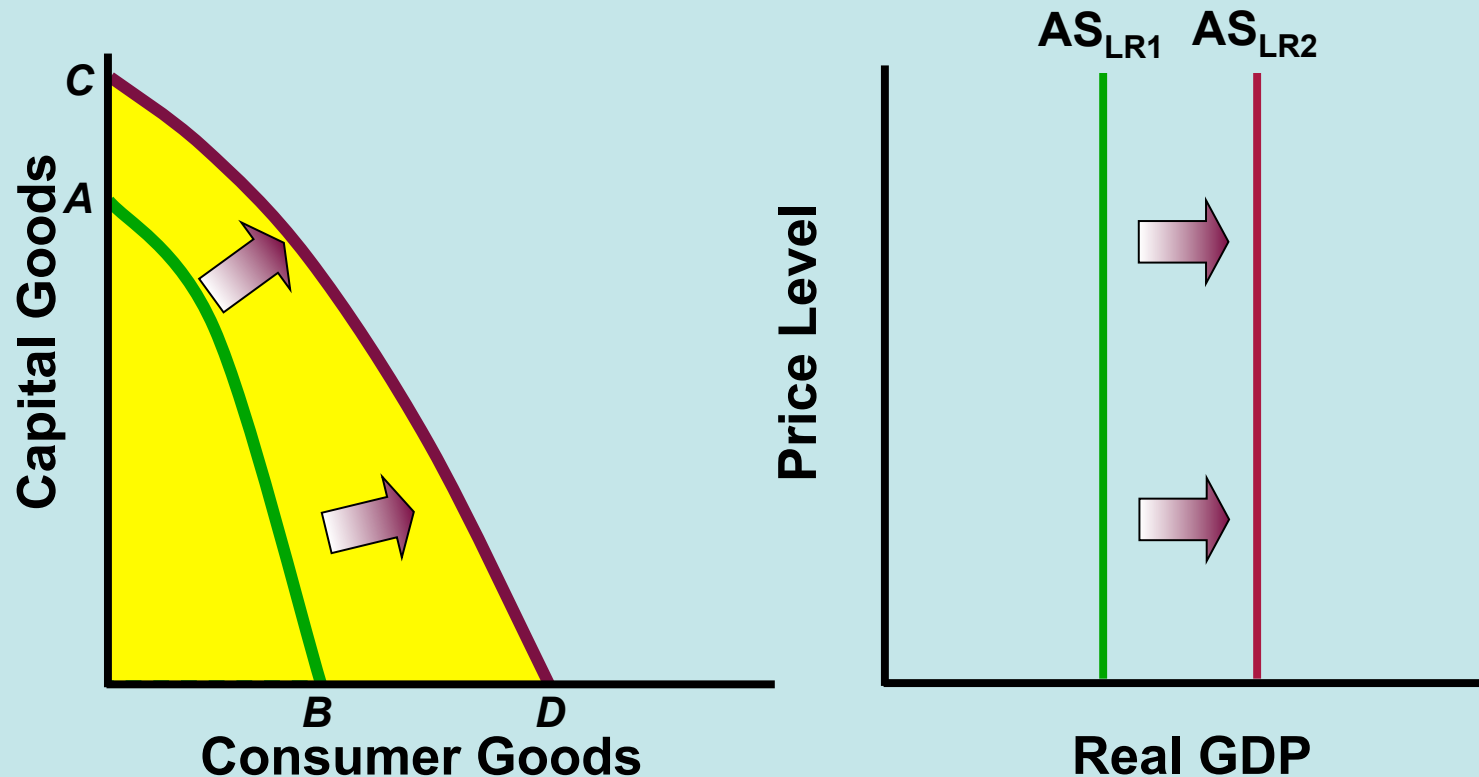


- Economic Growth: The increase in *national output* (Real GDP) within an economy over a given period of time.
- Economic Development: An increase in the *standard of living* across a broad section of the population.

# Production Possibilities

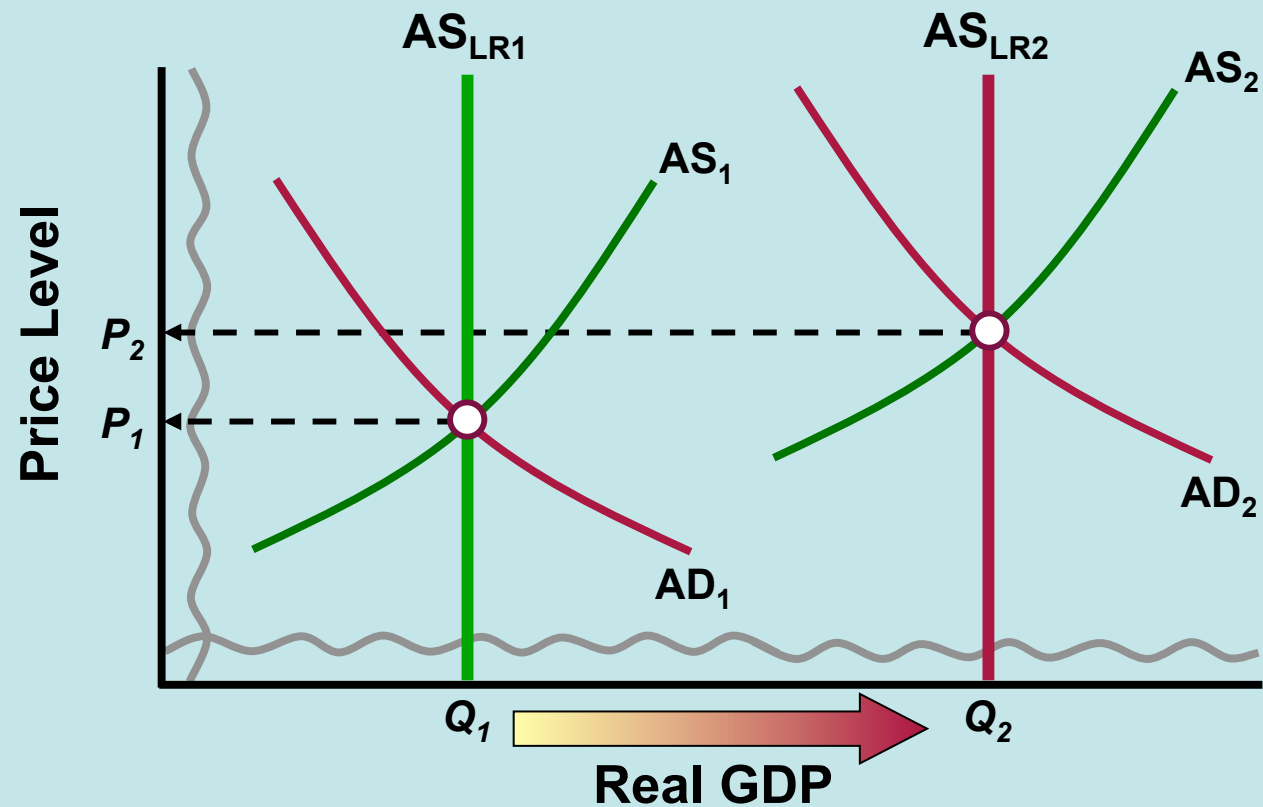


# Growth in AD-AS and Production Possibilities





# Growth in the AS-AD Model



# **What are the causes/sources of growth?**

1. **Supply factors**: Related to productivity
2. **Demand factors**
3. **Institutional factors**

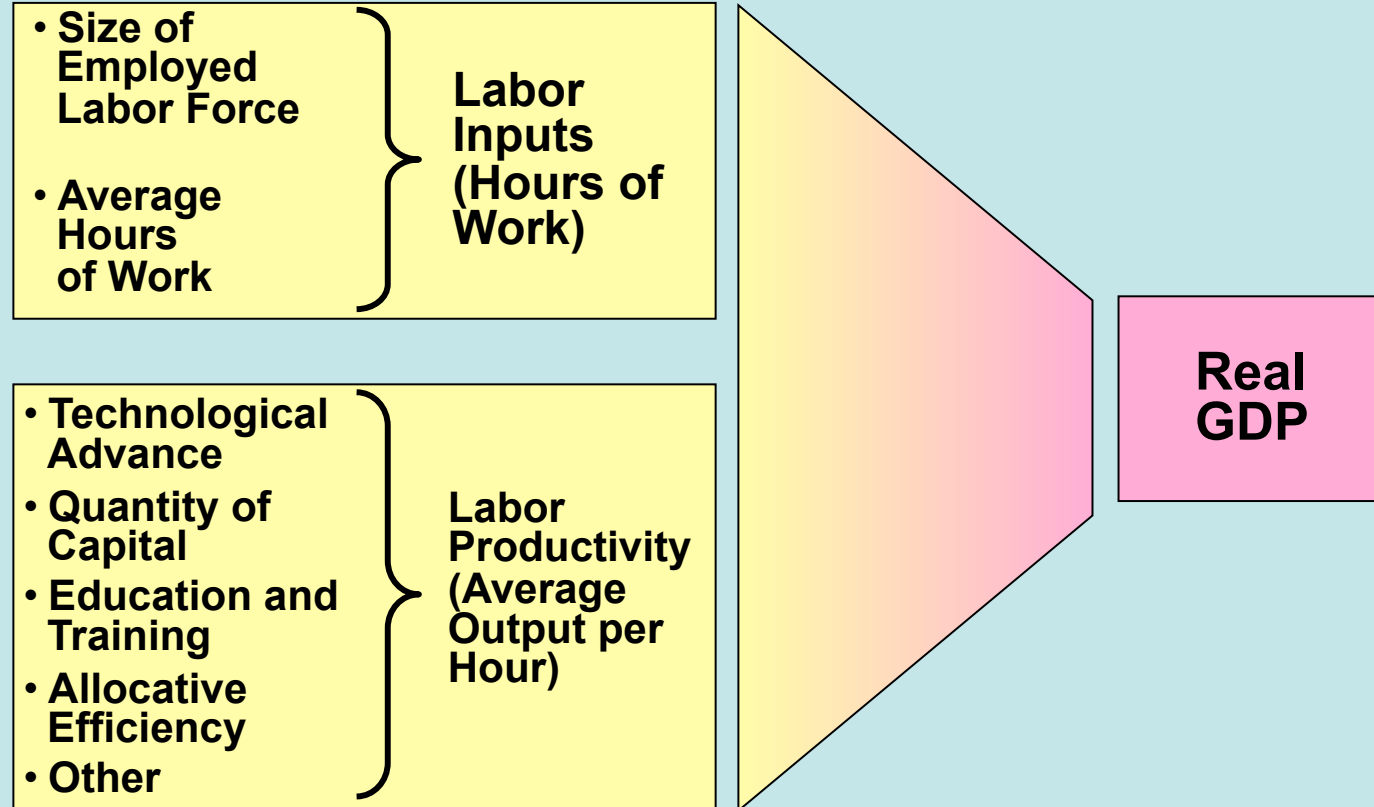
# **Supply Factors**

1. Increases in Quantity and Quality of Natural Factors (land or raw materials)
2. Increases in Quality and Quantity of Human Resources (Human Capital)
3. Increases in the Supply (or Stock) of physical capital
4. Improvements in Technology



# Labor Productivity

$$\text{Real GDP} = \text{Hours of Work} \times \text{Labor Productivity}$$



# **Why Productivity Is So Important**

- When a nation's workers are very productive, real GDP is large and incomes are high.
- When productivity grows rapidly, so do living standards.
- What, then, determines productivity and its growth rate?

## Physical Capital Per Worker

- The stock of equipment and structures used to produce g&s is called [physical] capital, denoted **K**.
- $K/L$  = capital per worker.
- Productivity is higher when the average worker has more capital (machines, equipment, etc.).
- *i.e.*, an increase in  $K/L$  causes an increase in  $Y/L$



## Human Capital Per Worker

- Human capital (**H**): the knowledge and skills workers acquire through education, training, and experience
- $H/L$  = the average worker's human capital
- Productivity is higher when the average worker has more human capital (education, skills, etc.).
- *i.e.*, an increase in  $H/L$  causes an increase in  $Y/L$

## Natural Resources Per Worker

- **Natural resources (N)**: the inputs into production that nature provides, *e.g.*, land, mineral deposits
- Other things equal, more N allows a country to produce more Y. In per-worker terms, an increase in  $N/L$  causes an increase in  $Y/L$ .
- Some countries are rich because they have abundant natural resources  
(*e.g.*, Saudi Arabia has lots of oil)
- But countries need not have much N to be rich  
(*e.g.*, Japan imports the N it needs).

# Technological Knowledge

- Technological knowledge: society's understanding of the best ways to produce g&s.
- Technological progress does not only mean a faster computer, a higher-definition TV, or a smaller cell phone.
- It means any advance in knowledge that boosts productivity (allows society to get more output from its resources).
  - *e.g.*, Henry Ford and the assembly line.

# **Sources of Growth - Demand Factors**

Households, businesses, and government must purchase the economy's expanding output of goods and services



# **Sources of Growth - Institutional Factors**

1. Banking System: provides liquidity
2. Education System: human capital
3. Health care
4. Infrastructure
5. Political stability

## ACTIVE LEARNING 1:

### Discussion question

Which of the following policies do you think would be most effective at boosting growth and living standards in a poor country over the long run?

- a. offer tax incentives for investment by local firms
- b. ...by foreign firms
- c. give cash payments for good school attendance
- d. crack down on govt corruption
- e. restrict imports to protect domestic industries
- f. allow free trade
- g. give away condoms